CLAIMS

1. A biologically active MN protein or MN polypeptide which mediates attachment of mammalian cells in a cell adhesion assay.

2. The MN protein or MN polypeptide of Claim 1 which when added to media of mammalian cells prevents the formation of intercellular contacts and prevents the adhesion of cells to other cells.

3. The MN protein or MN polypeptide of Claim 1 that comprises an amino acid sequence from SEQ ID NO: 97, from SEQ ID NO: 50 or from SEQ ID NO: 51.

4. The MN protein or MN polypeptide of Claim 1 that comprises an amino acid sequence selected from the group consisting of SEQ ID NOS: 10 and 97-106.

5. The MN protein or MN polypeptide of Claim 1 that comprises an amino acid sequence selected from the group consisting of SEQ ID NOS: 10 and 98-103.

6. The MN polypeptide of Claim 1 that is selected from the group consisting of SEQ ID NOS: 10 and 97-106.

7. The MN protein or MN polypeptide according to Claim 1 that is specifically bound by the M75 monoclonal antibody that is secreted from the hybridoma VU-M75, which was deposited at the American Type Culture Collection under ATCC No. HB 11128.

8. The MN protein or MN polypeptide according to Claim 1 that is specifically bound by the MN12 monoclonal antibody that is secreted from the hybridoma MN 12.2.2, which was deposited at the American Type Culture Collection under ATCC No. HB 11647.

9. An MN-specific antibody that specifically binds to the MN protein or MN polypeptide according to Claim 1.

10. An MN-specific antibody that specifically binds to the MN protein or MN polypeptide according to Claim 2.

11. An MN-specific antibody that specifically binds to the MN protein or MN polypeptide according to Claim 4.

12. A protein or polypeptide which specifically binds to the MN protein or MN polypeptide according to Claim 1.

13. A protein or polypeptide which specifically binds to the MN protein or MN polypeptide according to Claim 2.

14. A protein or polypeptide which specifically binds to the MN protein or MN polypeptide according to Claim 4.

15. The protein or polypeptide according to Claim 12 which comprises an amino acid sequence selected from the group consisting of SEQ ID NOS: 107-109.

16. A method of identifying a site on an MN protein to which vertebrate cells adhere by testing a series of overlapping polypeptides from said MN protein in a cell adhesion assay with vertebrate cells, and determining that if cells adhere to a polypeptide from said series, that said polypeptide comprises a site on said MN protein to which vertebrate cells adhere.

17. The method according to Claim 16 wherein said vertebrate cells are mammalian cells.

18. The method according to Claim 17 wherein said mammalian cells are human cells.

19. A protein or polypeptide which binds specifically to the polypeptide of Claim 16, which comprises a site on said MN protein to which vertebrate cells adhere.

20. A biologically active MN protein or MN polypeptide which comprises a site to which mammalian cells adhere in a cell adhesion assay.

21. A protein or polypeptide which specifically binds to said site of Claim 20, to which mammalian cells adhere in a cell adhesion assay.

22. An anti-idiotype antibody to a MN-specific antibody.

23. An anti-idiotype antibody according to Claim 22 wherein said MN-specific antibody is either the M75 monoclonal antibody secreted from the hybridoma VU-M75, which was deposited at the American Type Culture Collection under ATCC No. HB 11128, or the MN12 monoclonal antibody that is secreted from the hybridoma MN 12.2.2, which was deposited at the American Type Culture Collection under ATCC No. HB 11647.

24. An anti-anti-idiotype antibody to the anti-idiotype antibody according to Claim 22.

25. An anti-anti-idiotype antibody to the anti-idiotype antibody according to Claim 23.

26. An anti-anti-idiotype antibody according to Claim 24 which is polyclonal.

27. An anti-anti-idiotype antibody according to Claim 25 which is polyclonal.

28. An isolated MN nucleic acid that comprises a nucleotide sequence selected from the group consisting of SEQ ID NOS: 110-115.

29. An isolated MN nucleic acid according to Claim 28 comprising the nucleotide sequence of SEQ ID NO: 115.